In the Specification:

Please replace the previous Brief Description of Drawings with this amended form:

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is herein described, by way of example only, with reference to the accompanying drawings, wherein:

FIG. 1 is a flowchart of an illustrative method according to the present invention;

FIG. 2 shows an example of "pseudocode" for performing a breadth-first elaboration according to the present invention;

FIG. 3 shows an example of the elaboration process with regard to implementation with the *e* language according to the present invention;

FIG. 4 shows an exemplary graph according to the present invention which results from the execution of the code of Figure 2;

FIGS. 5A and 5B ~~shows~~ show the exemplary graph of Figure 4 after being unfolded;

FIG. 6 shows an example of *e* language code input for creating a sequential control flow graph according to the present invention;

FIG. 7 shows the resultant sequential control flow graph from Figure 6 according to the present invention;

FIG. 8 shows an exemplary unrolled graph after the process of unrolling is performed on the sequential control flow graph of Figure 7 according to the present invention;

FIG. 9 shows an example of the segmentation of the client process for the sequential control flow graph according to the present invention;

FIG. 10 shows exemplary pseudocode for an exemplary annotation process with regard to tagging according to the present invention;

FIG. 11 shows a simple two process example as written in the *e* language;

FIG. 12 shows a resultant elaboration graph, created according to the method of the present invention;

FIG. 13 shows an exemplary segmented scheduling constraint graph;

FIG. 14 shows a derived segmented scheduling constraint graph;

FIG. 15 shows an iterator access to hierarchical arrays; and

FIG. 16 shows an exemplary graph for operation with the present invention.

Please replace the paragraph on page 13, lines 6-9 with the following amended version:

Figures 5A and 5B ~~shows~~ show the exemplary graph of Figure 4 after being unfolded, which in this example is required since the *cl* struct has a TCM in it. The unfolded graph includes all possibilities for this struct, since the state of the struct cannot be predetermined during the elaboration process.